What is claimed is:

1. An apparatus for generating ozone and linearly controlling the concentration of the ozone being generated, comprising:

means for providing air containing oxygen;

means for generating ozone by applying electrical discharge to the air provided by the means for providing air;

means for providing a first pulse signal, wherein the first pulse signal is used for the electrical discharge and has an adjusted ON/OFF time ratio; and

means for transforming the first pulse from the first pulse provision means into a predetermined signal level, wherein the transformation means is electrically connected to the ozone generation means and the first pulse provision means.

2. The apparatus of Claim 1, further comprising means for generating a control signal to control the ON/OFF time ratio of the first pulse signal, and being electrically connected to the first pulse provision means.

3. The apparatus of Claim 2, wherein the first pulse provision means, in response to the control signal, generates a second pulse signal having an ON/OFF time ratio

depending on the control signal and a third pulse signal optimized for the electrical discharge, and mixes the second and third pulse signals, thereby generating the first pulse signal.

4. The apparatus of Claim 3, wherein the second pulse signal has a relatively lower-frequency than that of the third pulse signal, and each of the first pulse and the third pulse has an identical frequency and a different ON/OFF time ratio.

5. The apparatus of Claim 1, wherein the ozone generation means includes:

at least one upper electrode and one lower electrode opposed to each other, for generating voltage discharge;

an insulating material provided in flat type on one of each side of the upper electrode and the lower electrode; and

a cooling means provided adjacent to one of each side of the upper electrode and the lower electrode,

wherein the upper electrode is electrically connected to the transformation means, the first pulse signal is applied to the upper electrode, and the lower electrode is grounded.

6. The apparatus of Claim 5, wherein a gap ranging from

0.6 mm to 2 mm is provided between the upper and lower electrodes, in order to form a discharge space.

7. The apparatus of Claim 6, wherein the ozone is generated in the discharge space.

8. The apparatus of Claim 3, wherein the first pulse provision means includes a first oscillating means for generating the second pulse signal and a second oscillating means for generating the third pulse signal.

9. The apparatus of Claim 1, wherein the transformation means includes a Metglass core.